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ABSTRACT

Educational accountability is the process of achieving expected learner outcomes through the systematic application of management and evaluation procedures. The first five steps in achieving identified learner outcomes are planning and development steps. The remaining steps are implementation steps. Special programs should improve certain behaviors exhibited by program participants. These behaviors can be classified as cognitive, affective, or psychomotor. Special program personnel should establish goals. These goals should be listed and ranked in order of priority. Needs within each goal area should be assessed and objectives should be developed. Both performance and process objectives should be developed. (Author/MC)

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DEVELOPING GOALS AND OBJECTIVES FOR SPECIAL PROGRAMS

by
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NATIONAL INSTITUTE OF EDUCATION

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PREFACE

This booklet is part of a series of accountability training materials designed for use by personnel working with special programs for disadvantaged students. These programs include: Special Services, Talent Search, Upward Bound, Educational Opportunity Centers, Service Learning Centers and state Educational Opportunity Programs.

The purpose of these training materials is to provide special program personnel with an awareness of and skill development in basic accountability terminology and procedures.

The accountability system presented in these materials was developed over a two year period by consultants for Management and Evaluation Associates (M and E) working with several university special programs.

This booklet discusses two major steps in the development of a comprehensive accountability system for special programs, developing goals and objectives.

TABLE OF CONTENTS

Chapter		Page
1	An Accountability System for Special Programs	1
2	Describing the Behavior of Learners	4
3	Developing Goals for Special Programs	11
4	Developing Objectives for Special Programs	16
References		30
Answers to Chapter Exercises		31

CHAPTER 1: AN ACCOUNTABILITY SYSTEM FOR SPECIAL PROGRAMS

The need for accountability for special programs has been reviewed by Gordon (1977). However, efforts to respond to accountability needs for special programs have failed in one major respect - they have not provided an adequate set of definitions and procedures within which accountability efforts can be systematically planned, developed and implemented.

The accountability system developed for special programs by Management and Evaluation Associates attemps to meet this need.

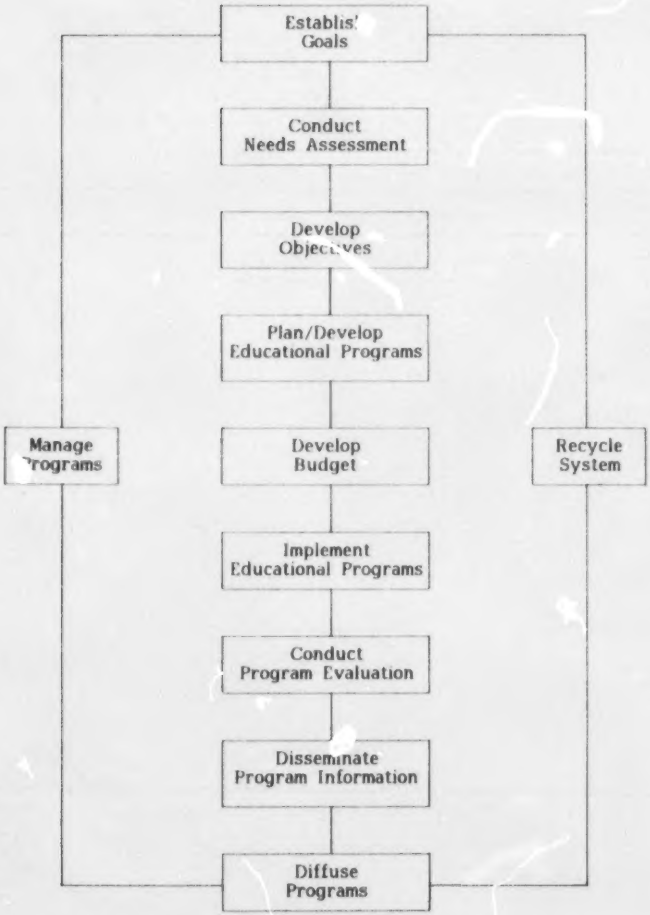
The following definition of accountability was developed by M and E consultants. Educational accountability is the process of achieving expected learner outcomes through the systematic application of management and evaluation procedures.

The M and E accountability system for special programs involves a series of steps designed to achieve identified learner outcomes. The steps are sequential, beginning with the establishment of goals and ending with the recycling of the system.

The first five steps are planning and development steps and take place before a program is implemented. These steps are: establishing goals, conducting a needs assessment, developing objectives, planning and developing an educational program and developing a budget. The remaining steps are implementation steps. These steps are: implementing, evaluating, disseminating, diffusing, managing and recycling the program. The diagram below summarizes these steps.

Commitment to a comprehensive accountability system is a prerequisite to effective implementation. Once commitment has been secured a task force should be formed and trained. The primary purpose of the task force would be to plan, develop and monitor the implementation of the total accountability system.

COMPREHENSIVE ACCOUNTABILITY SYSTEM FOR SPECIAL PROGRAMS



CHAPTER 2: DESCRIBING THE BEHAVIOR OF LEARNERS

The primary concern of special programs is the improvement of certain behaviors exhibited by program participants. Before we can generate valid goals and objectives it would be helpful to define behavior, its types and levels.

Behavior can be defined as the action or reaction of persons or things under specified circumstances. Finally, behavior need not be observable, although to be measured, some observable action must be performed.

TYPES OF BEHAVIOR

In general behavior can be classified as cognitive, affective or psychomotor, although other types or domains have been identified for example, health and social behavior.

Cognitive behavior focuses on the intellectual or thinking processes and is exemplified by the acts of reading, conducting mathematical operations, etc. Affective behavior refers to emotional or attitudinal behavior and is exemplified by attitudes toward self, peers, school, etc. Psychomotor behavior is characterized by neuromuscular activity and is usually displayed in acts such as writing, eye-hand coordination, etc.

Although these types of behavior provide a convenient way of distinguishing one type of behavior from another, behaviors usually overlap with one another. Thus a student taking a reading test is being assessed on his/her performance in reading, although that performance may be influenced by his/her attitude toward the test and his/her ability to properly complete the answer sheet.

EXERCISE 1: Identifying Types of Behavior

Directions - Read each statement below. Indicate what type of behavior is described by using the following code:

C = Cognitive
A = Affective or
P = Psychomotor.

Example -

C E. Student masters computational skills.

____ 1. Student masters problem solving skills.

____ 2. Student develops a good attitude toward learning.

____ 3. Student masters typing skills.

____ 4. Student develops a good attitude toward self.

____ 5. Student masters comprehension skills.

____ 6. Student develops a good attitude toward the university.

____ 7. Student develops an appreciation for the worth and dignity of individuals.

____ 8. Student masters study skills.

____ 9. Student develops an awareness of opportunities and requirements related to a specific field of work.

____10. Student rides a bicycle to class.

Consult the table of contents for the location of the answer key to chapter exercises.

LEVELS OF BEHAVIOR

An extensive body of literature has focused on attempts to specify levels of behavior or taxonomies. Although numerous taxonomies have been developed, three have been used extensively. These taxonomies are the taxonomy for cognitive behavior developed by Bloom et. al. (1956); the taxonomy for affective behavior developed by Krathwall et. al. (1956); and the taxonomy for psychomotor behavior developed by Dave (unpublished).

All three taxonomies attempt to define levels of behavior ranging from the simplest level to the most abstract. Another characteristic of these taxonomies is the attempt to define each level well enough to be as mutually exclusive as possible.

Bloom's cognitive taxonomy identifies six levels of behavior ranging from the simplest (knowledge) to the most abstract (evaluation). These levels and key descriptors associated with each are as follows:

knowledge (learner recognizes or recalls information presented to him/her)

comprehension (learner translates, interpretes or extrapolates information presented to him/her)

application (learner uses information presented to him/her in a situation different than the one in which it was learned)

analysis (learner makes comparisons among information presented to him/her)

synthesis (learner develops or creates a new thought based on information presented to him/her)

evaluation (learner makes a decision based on a specific criteria)

Krathwall's affective taxonomy identifies five levels of behavior ranging from the simplest (receive) to the most abstract (characterization). These levels and key descriptors associated with each are as follows:

receive (learner is attentive to information presented to him/her)

respond (learner complies with directions)

value (learner's behavior is consistent with an expressed belief when compliance is not required)

organization (learner demonstrates commitment to a belief)

characterization (learner demonstrates total commitment to a belief)

Dave's psychomotor taxonomy identifies five levels of behavior ranging from the simplest (imitation) to the most abstract (naturalization). These levels and key descriptors associated with each are as follows:

imitation (learner imitates a psychomotor activity)

manipulation (learner follows directions related to refinement of a psychomotor activity)

precision (learner carries out a psychomotor activity on his/her own with a degree of control and accuracy)

articulation (learner coordinates a set of related psychomotor activities with control, accuracy, speed and good timing)

naturalization (learner performs a set of psychomotor activities in a natural manner)

EXERCISE 2: Identifying Levels of Behavior

Directions - Read each statement below. Enter the appropriate level of cognitive, affective or psychomotor behavior in the space to the left of each statement.

Example -

Knowledge E. Student demonstrates a knowledge of freshman vocabulary.

_____ 1. Student responds positively toward self.

_____ 2. Student demonstrates a knowledge of mathematical concepts.

_____ 3. Student applies computational skills.

_____ 4. Student types with precision.

_____ 5. Student comprehends reading passages.

Consult the table of contents for the location of the answer key to chapter exercises.

CHAPTER 3: DEVELOPING GOALS FOR SPECIAL PROGRAMS

Goals are broad statements of intent that are timeless in nature, and not measurable. Educational goals are based on the philosophy of education emphasized by a particular group of educators and can be classified as either performance goals or process goals.

Performance goals are broad statements of intent which center around expected learner outcomes, for example to learn to read or to develop a good self-image. Process goals are broad statements of intent which center around a statement of activity for administrative, instructional or support personnel which is designed to achieve performance goals, for example, to provide an atmosphere conducive to learning, etc.

To establish goals, special program personnel can either adopt existing goals or generate new goals. The final list of performance and process goals should be ranked in order of priority, since it is unlikely that a given program will be able to adequately respond to all identified goals. A sample format for a goal ranking instrument is shown below.

The following priority goals were developed for several special programs emphasizing instruction:

Performance Goals -

1. to learn basic skills

Process Goals -

1. to provide basic skills tutoring
2. to provide counseling services, and
3. to administer tutorial and counseling services.

The following priority goals were developed for several special programs emphasizing counseling services:

Performance Goals -

1. to improve study habits and attitudes

SPECIAL PROGRAMS
GOAL RANKING INSTRUMENT

Name_____

Directions:

GOAL	RANK

Process Goals -

1. to provide counseling services, and
2. to administer counseling services.

EXERCISE 3: Identifying Types of Goals

Directions - Read each of the following goal statements. Place a PE in the space to the left of the goal statement if it is a performance goal, and a PR if it is a process goal.

Example -

PE E. To improve reading ability.

_____ 1. To increase mathematical ability.

_____ 2. To provide counseling services.

_____ 3. To develop an appreciation for the worth and dignity of individuals.

_____ 4. To improve study skills.

_____ 5. To develop an awareness of opportunities and requirements related to a specific field of work.

_____ 6. To provide teacher in-service programs.

_____ 7. To provide individualized instruction.

_____ 8. To develop a positive attitude toward learning.

_____ 9. To determine the effectiveness of planned programs.

_____ 10. To develop self-understanding and self-awareness.

Consult the table of contents for the location of the answer key to chapter exercises.

CHAPTER 4: DEVELOPING OBJECTIVES FOR SPECIAL PROGRAMS

Once priority program goals have been established, the needs within each goal area must be assessed.

Two types of needs assessment can be specified. Performance needs assessment is the determination of student performance below expected levels of performance. For example, if a given student is expected to obtain an 80 on the pretest administration of the ABC Study Skills Test and scores a 70, a need has been identified in study skills for that student as measured by the ABC Study Skills Test. This type of needs assessment should be conducted for all priority performance goal areas.

A process needs assessment is the determination of resources needed to eliminate

process needs. Typical resources include personnel, equipment, money, etc. A process needs assessment is typically conducted through the use of a survey instrument. This type of needs assessment should be conducted for all priority process goal areas.

A needs assessment system for a given set of priority goals therefore, involves the identification of the population and areas to be assessed, the development and selection of appropriate measuring or survey instruments, the specification of an expected performance level or criteria and the administration, collection, analysis and reporting of assessment results.

Once performance and process needs have been identified, objectives can be developed directly from these need areas.

An objective is a specific statement of an expected outcome or planned activity. Two types of objectives can be specified. An objective specifying expected outcomes or a performance objective (sometimes called a product, instructional, terminal, summative or main objective) and an objective specifying planned activities or a process objective (sometimes called a formative or contributory objective).

The purpose of an objective is simply to facilitate communication about a given pro-

gram's expected outcomes and the planned activities designed to achieve these outcomes. Historically, objectives related to expected outcomes can be traced to Bobbit (1918) who suggested that objectives be used to state the aim of a curriculum. Bobbit however, did not provide a specific definition for an objective. The elements of an objective began to take shape when Travers (1955) suggested that enough be listed in an objective to clarify the typical behavior of pupils who have achieved the objective. The first major attempt to define this type of objective was made by Mager (1962).

The history of objectives related to planned activities can be traced to federal educational legislation in the mid 1960s.

Today several systems for writing both types of objectives are available. In addition, educators can select objectives from available pools of developed objectives, or purchase educational programs with objectives already built in.

PERFORMANCE OBJECTIVES

A performance objective is a specific statement of expected learner outcome. A performance objective is generated from a performance need and contains six ele-

ments. These elements are time, who, conditions or level of behavior, the expected behavior, proficiency level and measurement. A sample performance objective therefore might state that - By the end of the academic year, students participating in the department's reading center program will demonstrate an improvement in their comprehension of vocabulary by gaining 25 raw score points between pre and post test administrations of the vocabulary subtest of the XYZ Test.

The following performance objectives were developed for several special programs:

1. By the end of each academic semester, students receiving learning center services in reading will demonstrate an improvement in reading performance by showing a 20 percent raw score gain between pre and post administrations of the McGraw-Hill Basic Skills System-Reading Test.

2. By the end of each academic semester, students receiving learning center services in writing will demonstrate an improvement in writing performance by showing a 20 percent raw score gain between pre and post administrations of the McGraw-Hill Basic Skills System-Writing Test.

3. By the end of each academic semester, students receiving learning center services in mathematics will demonstrate an improvement in mathematics performance by showing a 20 percent raw score gain between pre and post administrations of the mathematics subtest of the California Test of Basic Skills.

EXERCISE 4: Critiquing Performance Objectives

Directions - Read each of the following statements. Place the number(s), in the space to the left of the statement, which represents the missing element(s) of a performance objective where:

1 = Time
2 = Who
3 = Condition or Level of Behavior
4 = Behavior
5 = Proficiency, and
6 = Measurement.

If the statement has all six elements mark the space with an OK.

Example -

1,3,5 E. Students will learn reading as measured by the ABC Test.

_____ 1. Students participating in the Special Services Program will demonstrate an bility to apply basic mathematic concepts.

_____ 2. By the end of the academic year, students participating in the Special Services Program and who attend the reading center on a dail basis will demonstrate a comprehension of reading skills.

_____ 3. Students participating in the Upward Bound Program will demonstrate an ability to master the main idea of paragraphs by achieving an 80 percent mastery level.

_____ 4. By the end of the academic year, there will be a mastery of basic reading skills as measured by the Upward Bound Criterion Referenced Test.

_____ 5. By the end of the academic year, students participating in the Special Services Program will demonstrate a mastery of reading vocabulary by achieving an 80 percent

mastery on the reading vocabulary subtest of the XYZ Criterion Referenced Test.

Consult the table of contents for the location of the answer key to chapter exercises.

A unique feature of performance objectives is that they can be written at several levels of content specificity. A curriculum level performance objective states the expected outcome for an instructional area, for example reading or counseling. A concept level performance objective states the expected outcome for sub-areas within an instructional area, for example reading may be divided into vocabulary and comprehension etc. Finally, a skill level performance objective states expected outcomes for specific skills within an identified sub-instructional area for example, within the sub-instructional area of comprehension you might identify the sequence of events in reading passages or the main idea of reading passages etc.

The diagram below illustrates the three levels of performance objectives.

EXERCISE 5: Identifying Levels of Performance Objectives

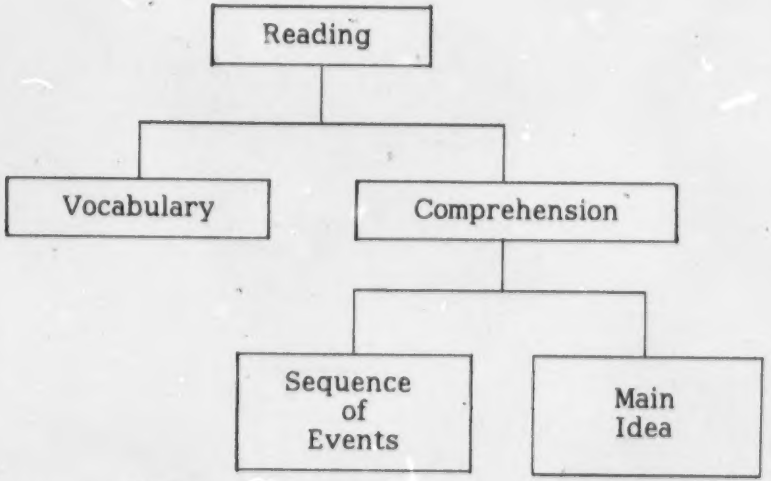
Directions - Read each of the following performance objectives. In-

LEVELS OF PERFORMANCE OBJECTIVES

Curriculum Level

Concept Level

Skill Level



dicate in the space to the left of each objective, at what level of specificity the objective is written using the following code:

C = Curriculum Level
CO = Concept Level, and
S = Skill Level.

Example -

C E. By the end of the academic year, students participating in the Upward Bound Program will demonstrate a comprehension of basic mathematics by achieving an 80 percent mastery on the XYZ Mathematics Test.

_____ 1. By the end of the academic year, students participating in the Special Services Program will demonstrate an ability to apply basic mathematic concepts by achieving an 80 percent mastery level on the mathematic concepts subtest of the XYZ Criterion Referenced Test.

_____ 2. By the end of the academic year, students participating in the Special Services Pro-

gram will demonstrate a comprehension of reading skills by demonstrating a 25 point raw score gain between pre and post administrations of the ABC Reading Test.

_____ 3. By the end of the summer program, students participating in the Upward Bound Program will demonstrate an ability to comprehend the main idea of a reading passage by achieving an 80 percent mastery level on selected items of the Upward Bound Criterion Referenced Test.

_____ 4. By the end of the academic year, students participating in the Upward Bound Program will demonstrate a comprehension of basic reading skills by achieving an 80 percent mastery on the Upward Bound Criterion Referenced Test.

_____ 5. By the end of the academic year, students participating in the Special Services Program will demonstrate a comprehension of reading vocabulary by achieving an

80 percent mastery on the reading vocabulary subtest of the XYZ Criterion Referenced Test.

Consult the table of contents for the location of the answer key to chapter exercises.

PROCESS OBJECTIVES

A process objective is a statement of an activity to be carried out by administrative, instructional or support personnel designed to assist in the attainment of a performance objective. A process objective is generated from a process need and contains four elements. These elements are time, the individual(s) or group(s) responsible, the activity and type of documentation. A sample process objective therefore might state that - During the academic year counselors will provide academic counseling as documented by the Counseling Log. A fifth element specifying a quantative criteria can also be added for example - During the academic year counselors will provide a minimum of 50 counseling sessions as documented by the Counseling Log.

Finally, process objectives can be classified as administrative, instructional or support depending on the nature of the activity specified.

The following process objectives are samples developed for several special programs:

1. During the year the reading center staff will provide tutorial services in reading as documented by the Learning Center Student Record Form.

2. During the year the writing center staff will provide tutorial services in writing as documented by the Learning Center Student Record Form.

3. During the year all learning center staff will plan and implement learning center administrative activities as documented by the Learning Center Administrative Log.

4. During the year the counselors will provide personal-social counseling as documented by the Counseling Services Log.

5. During the year the counselors will provide academic counseling as documented by the Counseling Services Log.

6. During the year the counselors will provide career counseling as documented by the Counseling Services Log.

7. During the year the counselors will provide financial aid counseling as documented by the Counseling Services Log.

8. During the year all counseling staff will plan and implement counseling administrative activities as documented by the Counseling Administrative Log.

EXERCISE 6: Critiquing Process Objectives

Directions - Read each of the following statements. Place the number(s) in the space to the left of the statement, which represents the missing element(s) of a process objective where:

1 = Time
2 = Individual(s)/Group(s) Responsible
3 = Activity, and
4 = Documentation.

If the statement has all four elements mark the space with an OK.

Example -

1,4 E. Instructional staff will provide instruction.

_____ 1. Upward Bound counselors will provide career counseling.

_____ 2. During the academic year, the instructional staff will provide instruction in reading vocabulary.

_____ 3. The assistant director will prepare the unit budget breakdown as documented by the completed budget on file in the program office.

_____ 4. During the academic year, the assistant director will process E.O.F. applications as documented by the completed application on file in the program office.

_____ 5. During the academic year E.O.F. counselors will provide personal-social counseling to participating students resulting in a resolution of 50 percent of all cases as documented by the E.O.F. Personal-Social Counseling Log.

Consult the table of contents for the location of the answer key to chapter exercises.

REFERENCES

Bloom, B. S. et. al., Taxonomy of Educational Objectives, Handbook I: Cognitive Domain. New York: David McKay Company, Inc., 1956.

Bobbit, F., The Curriculum. Boston: Houghton Mifflin, 1918.

Dave, R. H., National Institute of Education, NIE Building, Nehrauli Road, New Delhi, India.

Gordon, E.W., Equal Opportunity in Higher Education, IRCD Bulletin, Vol. XI, No. 1, 1976.

Krathwolh, D.R. et. al., Taxonomy of Educational Objectives, Handbook II: Affective Domain. New York: David McKay Company, Inc., 1956.

Mager, R. F., Preparing Instructional Objectives. Palo Alto: Fearon Publishers, 1962.

Travers, R. M. W., Educational Measurement. New York: Macmillan, 1953.

ANSWERS TO CHAPTER EXERCISES

EXERCISE 1: 1. C; 2. A; 3. P; 4. A; 5. C; 6. A; 7. A; 8. C; 9. C, 10. P.

EXERCISE 2: 1. Respond; 2. Knowledge; 3. Apply; 4. Precision; 5. Comprehension.

EXERCISE 3: 1. PE; 2. PR; 3. PE; 4. PE; 5. PE; 6. PR; 7. PR; 8. PE; 9. PR; 10. PE.

EXERCISE 4: 1. 1,5,6; 2. 5,6; 3. 1,3,6; 4. 2,3,5; 5. 3.

EXERCISE 5: 1. CO; 2. C; 3. S; 4. C; 5. CO.

EXERCISE 6: 1. 1,4; 2. 4; 3. 1; 4. OK; 5. OK (contains 5 elements).

For information on other accountability training materials or personalized inter-mail consultation services related to the design and implementation of the accountability system presented in this booklet contact:

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